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THE UNIVERSITY OF ALBERTA

A COMPARISON OF ALBERTA SENIOR HIGH SCHOOL
PHYSICAL EDUCATION FACILITIES AND GYMNASIUM
EQUIPMENT WITH 1972 RECOMMENDED STANDARDS

by



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A THESIS

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FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled, "A Comparison of Alberta Senior High School Physical Education Facilities and Gymnasium Equipment With 1972 Recommended Standards," submitted by Charles J. Moser in partial fulfillment of the requirements for the degree of Master of Arts.

ABSTRACT

The purpose of this study was to determine and evaluate the present status of the Alberta senior high school physical education facilities and gymnasium equipment, and to compare the results to the standards recommended in May, 1972 by the Facilities Committee of the Health and Physical Education Council of the Alberta Teachers Association.

The questionnaire survey method was selected to investigate the problem. The questionnaire used was the Statistics Canada Survey of Physical Education Programmes and Facilities in Canadian schools. The facilities section only of the questionnaire was used for the purposes of this study.

The questionnaire, which is presented in its entirety in Appendix E, was distributed to the sixty-five senior high schools of Alberta which house grades X, XI and XII in one school plant. The distribution and collection was carried out by the Research Development and Examinations Branch of the Alberta Department of Education. Fifty-nine questionnaires were completed and returned.

It was concluded that the gymnasium facilities of the senior high schools of Alberta were not adequate when compared to the standards recommended. Shower rooms and change rooms were quite adequate while storage area and separate towelling rooms were unsatisfactory when compared to the suggested standards. Except for inadequate badminton court markings, the installed gymnasium facilities were almost universally adequate throughout the province. Portable gymnasium equipment was in

satisfactory supply in a large majority of the senior high schools. The outdoor facility areas were somewhat less than adequate when compared to the recommended standards. Swimming pools owned by local school boards in the province were almost completely lacking.

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CHAPTER I

STATEMENT OF THE PROBLEM

Introduction

Canadian physical education, particularly in the Province of Alberta, is experiencing a period of rapid change and growth. Throughout this period the status of physical education as a profession has been recognized as an integral part of general education. The Department of Education of the Province of Alberta has published various statements of philosophy, aims and objectives of general education from time to time, and certain of these objectives can be met only by a physical education program. It follows then that essential facilities must be planned for and provided by administration to enhance this program.

Routledge (1:1) contended that recommendations concerning facilities must be formulated as the end result of the following sequence of reasoning:

1. Formulation of a philosophy, aims, and objectives of general education.
2. Formulation of a philosophy, aims, and objectives of physical education, consistent with those of general education.
3. Construction of a curriculum or program of activities to be used to achieve the aims and objectives, insofar as that is possible.
4. Determination of the facilities and equipment needed to conduct the program.

McLachlin (2:28), in his comprehensive survey of the physical education curriculum, facilities and administrative organizations in the city senior high schools of Alberta in 1952, stated that facilities play a very important part in the adequacy of any physical education program.

Grierson (3:2) in his evaluation of physical education facilities and programs in secondary schools of Alberta in 1955, stated:

"Physical education is another area where facilities play an important part. Without proper facilities a physical education program is extremely limited."

Ezersky (4), Ouwerkwerk (5), Rieger (6), Strickland (7), Borell (8), Cameron (9), Loken (10), Ecker (11), Collins (12), Harmon (13), Greene (14) and Lammers (15), are several of many researchers who drew attention to the fact that the quality of the physical education program is affected to a large extent by the adequacy of facilities and equipment.

The present philosophy of physical education in Alberta, based upon the offering of experiences and instruction in a wide variety of core sports and activities, demands not only a sufficient number of facilities but also those which are adequate in kind.

The Problem

The purpose of this study was to determine and evaluate, through the questionnaire survey method, the present status of the senior high school physical education facilities and gymnasium equipment

in the Province of Alberta, Canada, with the intention of comparing the results to the standards recommended in May 1972 by the Facilities Committee of the Health and Physical Education Council of the Alberta Teachers Association.

Justification for the Study

No survey study of a similar nature has been carried out in Alberta, and no survey of any type on senior high school physical education equipment and facilities has been completed since 1955 in Alberta. It is a function of this study to serve as a source of information for the many individuals and institutions involved in planning and utilizing facilities, including,

1. Department of Education, School Buildings Branch,
2. Faculty and Departments of Physical Education in Alberta Universities,
3. Supervisor of Physical Education, Department of Education,
4. Sub-committee on Physical Education of the General Curriculum Committee of the Province of Alberta,
5. Facilities Consultant, Department of Culture, Youth and Recreation,
6. Facilities Committee of the Health and Physical Education Council of the Alberta Teachers Association,
7. Local school boards,
8. Local directors of recreation,
9. Supervisors of physical education,

10. School principals,
11. Central office administrators,
12. Subject specialists,
13. Architects,
14. Personnel involved in writing specifications for facilities.

A good physical education program is dependent on facilities both indoor and outdoor. To provide the proper facilities for the program requires expenditure of considerable sums of money. Since it is self-evident that educational structures, once erected, must serve the needs of education for a long time, it is imperative that wisdom and foresight be used in their design and construction. No longer may the local school board take the traditional role of outlining the building program and requirements to the architect or engineer in generalities, feeling secure in the knowledge that the competence and experience of these professionals will bridge the many gaps and produce a functional, beautiful and economical building which meets all requirements. Too many seemingly minor mistakes have been made in the past to justify continuing in this manner. No longer is it acceptable to simply reproduce existing buildings because they contain one or two good features. Well structured checks must be made to eliminate mistakes which are being repeated. What may be functional in one community or locale may not be in another. Custom specifications for each new building or improvement are the answer and will result only if the administrators, architects, and planning personnel are completely aware of the facilities currently at hand. A constant evaluation of

existing facilities is vital to future planning and design.

Nixon (16:1) in preparing a scorecard for evaluating Canadian high school health and physical education programs stated:

"In all phases of life there must be some measurement of present status before any effective program of improvement may be undertaken. Status is not merely determined by unthinking observations, but rather is based upon, and guided by, certain principles and practices."

Parkam (17:1), writing on the importance of evaluation, stated:

"In order to determine the degree of success or failure of any program of education, there must be some form of evaluation. Programs of physical education as an accepted phase of general education, therefore, need to be subjected to continuous appraisal. Without evaluation, educators are forced to rely on guesswork in their efforts to provide an effective physical education program."

Limitations of the Study

It is necessary to acknowledge the following limitations of this study:

1. The criteria for evaluation were limited to items included in the Statistics Canada Survey of physical education programs and facilities in Canadian schools for 1972.
2. Only the sections of the survey dealing with facilities and gymnasium equipment were used.
3. Only board-owned facilities in the senior high schools of Alberta were included in the study.

4. Accuracy of the answers given in the survey by principals or physical education teachers have been received without questioning the integrity of the respondents.

5. The inherent limitations of the questionnaire survey method were accepted.

Delimitations of the Study

It is necessary to set the following delimitations of the study:

1. The study was delimited to the sixty-five senior high schools of Alberta which house grades X, XI and XII in a separate school building.

2. The study was delimited in time to the months of April and May 1972.

3. The study does not include private high schools in Alberta which house grades X, XI and XII in a separate school plant.

Definition of Terms

Equipment. Equipment refers to materials which are needed to conduct the physical education program, owned by the school, which are not part of the buildings or permanent fixtures.

Evaluation. Evaluation is the process of appraising the facilities and gymnasium equipment of the senior high schools of Alberta and involves comparison with standards recommended in May 1972 by the Facilities Committee of the Health and Physical Education Council of the Alberta Teachers Association.

Facilities. Facilities are the lands, space, structures and fixtures essential for the effective functioning of the physical education program. Service facilities include change rooms, showers, drying room, first aid room and team locker rooms.

Senior High Schools. Senior high schools are schools with grades X, XI and XII in a separate school building.

Statistics Canada Survey Questionnaire. The instrument by which data were acquired and evaluated for physical education facilities and gymnasium equipment in Alberta senior high schools.

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CHAPTER II

REVIEW OF THE LITERATURE

Research with respect to physical education facilities and equipment in Alberta senior high schools is very scarce. No study has been completed dealing only with this topic, however, there are several studies which included facilities and equipment in the investigation of the total physical education program, and thus have a bearing on this study.

In 1943, Arthur Eriksson (1) made a survey of physical education and health in representative one-room schools in Alberta. Included in his study is information concerning various phases of the physical education program in the rural school areas. Although Eriksson's study pertained only to the small schools in rural areas he recommended that facilities be provided for, and more time should be spent in dual activities, such as horseshoes, croquet, badminton, tennis and tether ball. He also recommended that school buildings be planned and used for community recreation purposes.

Panton (2) in 1948 carried out a study of intramural programs in the four western Canadian universities and selected junior colleges and senior high schools in the four western provinces. In his summary relating to the senior high schools, Panton indicated there was a definite increase in interest in intramural work but that there was a serious lack of gymnasium facilities in at least ninety per cent of all schools. Panton pointed out that indoor facilities are of paramount importance in Canadian schools where the severity of the winter

season makes it essential to have an adequate indoor program.

Hughes (3) in 1946 completed a study which dealt with a survey and evaluation of the physical education program in the secondary schools in the Greater-Victoria, British Columbia area. The study was limited to five senior high schools and one junior high school, however, the results showed that even in a city which is reasonably well-to-do, economically, the facilities do not measure up to accepted standards. Indoor locker and shower areas were inadequate. Swimming pools and swimming programs were found to be practically non-existent.

McLachlin (4) in his survey of twenty-four senior high schools in the cities of Alberta revealed that a definite lack of outdoor facilities hampered the effective functioning of the outdoor activities. The majority of the schools failed to meet the minimum standards of ample space requirements. Seventy per cent of the schools had inadequate indoor facilities and the accommodation that was available did not meet standards for adequate usable space. It was recognized that the lack of adequate indoor and outdoor facilities was certainly a major problem facing physical educators in Alberta, and that no effort should be spared by school administrators in their endeavors to secure adequate physical education facilities.

All schools investigated, with one exception, lacked swimming pools. Most schools had satisfactory supplies and equipment for class instruction but often failed to maintain these in good condition. Locker and shower areas in the majority of schools were inadequate. Over fifty per cent of the schools lacked sufficient locker, shower, drying and

dressing areas.

McLachlin (4:65), writing on the importance of evaluation, stated:

"It is recommended that periodic surveys of all phases of the programs be conducted in order to assist the upgrading of physical education in the province."

Grierson (5), in his 1955 survey of seventy-four Alberta high schools, investigated the physical education program and facilities and compared results to the standards recommended the same year by LaPorte (6).

Approximately one half of the schools had only one physical education teaching station or activity area indoors and during severe winter weather and rainy periods, only one class in physical education could be conducted at one time. If this activity was not of a co-educational nature, either the boys or the girls would be excluded from participation during that time. Only one school had a swimming pool. Indoor facilities generally were found to be most inadequate and because of this the majority of the schools could conduct only a very restricted group of activities. The investigator found that generally the outdoor playing area was quite adequate for the number of pupils enrolled in the school. Several schools surveyed supplied shower facilities but usually the dressing room sizes were smaller than recommended. Only five of the schools had gymnasium floor areas nearing the minimum as suggested by LaPorte (6). Almost half the schools reached the minimum height standard of eighteen feet in these gymnasiums. With respect to equipment the schools surveyed fell short of

the minimum requirements listed by LaPorte (6). The investigator concluded his study by stressing the value of constant evaluation when he recommended that continued surveys must be made in the field of physical education, to measure progress and form the basis for future decisions and planning.

Cameron (7) in 1959 completed a survey of the physical education programs in twenty-two city high schools in the Province of Saskatchewan. He found many weaknesses in the provisions for adequate facilities with the majority of the schools scoring below LaPorte's (6) mean score of fifteen. For all categories combined the mean score was 9.76 for twenty-two schools, which indicates that there were some weaknesses in the physical education facilities both indoor and outdoor and a complete lack of swimming pools.

Ouwerkwark (8), in investigating in 1968 the status of the intramural sports program for boys in selected rural high schools in Alberta found that many respondents indicated a lack of facilities, thereby limiting the breadth of activity offerings.

Braithwaite (9) in 1970 completed a survey and evaluation of physical education facilities and programs in nine southwestern Alberta junior high schools. Using the Neilson scorecard to gather data, the investigator showed a significant relationship between facility weaknesses and program activities. This study represents the last of its kind in Alberta to date.

An analysis of the studies cited in this chapter reveals a lack of adequate indoor and outdoor physical education facilities and equipment

in Alberta and other western provinces. The author has made no attempt to record the available literature concerning studies of a similar nature carried out throughout the United States.

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CHAPTER III
TRENDS IN THE DEVELOPMENT OF PHYSICAL EDUCATION
FACILITIES IN ALBERTA SENIOR HIGH SCHOOLS

Historically, facilities for physical education have been shaped by several movements in Canada and Alberta. The earliest physical education programs were influenced by the Per Henrik Lings Swedish System of Gymnastics (1:3) which German and Scandinavian immigrants brought with them to this country. The game of basketball, invented in 1891, became extremely popular throughout North America and was being played in Y.M.C.A.'s and schools across Canada within twenty years of coming into being. These two movements undoubtedly were most influential in determining the size and shapes of gymnasiums as we know them today. The two world wars influenced the establishment of physical education facilities and programs also. In general the period immediately following the First World War was marked by increased interest in fitness influenced by military programs. Medical examinations at the beginning of and throughout World War II revealed that many men and women were unfit for military service (1:8). The government's concern for the physical fitness of the youth of the country resulted in the passing on October 1, 1943 of Canada's National Physical Fitness Act (1:9). The Act established a fund of two hundred and fifty thousand dollars to be provided to provincial governments on a per capita basis, to promote the physical fitness of the people of Canada through the extension of physical education in schools, universities and other establishments. In recent years the

most significant event of importance to physical education was the enactment on September 29, 1961 of Bill C-131 (1:11). It was an act to encourage fitness and amateur sport throughout Canada and greatly influenced the training of physical educators and the establishment of more adequate facilities.

The gymnasium facilities generally, have improved markedly in Alberta since 1952. McLachlin (2), in his study of city high schools in Alberta, found a very small percentage of schools met recommended standards at that time. The mean score per school was slightly more than ten, below the standard mean of fifteen on the LaPorte (3) score-card. Proper facilities and adequate usable space were not available to handle necessary classes indoors. Town and rural high schools were not included in the study and would likely have scored lower.

Very little improvement seems apparent between 1952 and 1955 when Grierson (4) completed his study and evaluation of seventy-four junior and senior high schools in all areas of the province. Facilities were still classified as grossly inadequate. Less than one half of the schools reported formal gymnasiums which would illustrate that many schools had no physical education facilities whatsoever. Forty-one of seventy-four schools used a room equivalent in size to a classroom. Only one gymnasium floor area was in excess of 8,000 square feet. Eight schools reported floor areas between 5,000 and 8,000 square feet, but a large majority were under 2,500 square feet, certainly not adequate for proper physical education classes.

An enormous improvement in facilities generally was made in the period from 1955 to 1966 when the writer completed a survey of all

the senior high school facilities in the province. A marked upswing in enrollments was experienced during this time necessitating a very energetic building program for new facilities to meet this demand. Approximately one half of the senior high schools functioning today in the Province of Alberta, were constructed during that time. Factors such as a sound financial situation and a universally improved attitude toward fitness and physical education in general, had a great bearing on the improvement of physical education facilities in the schools. Almost one half of the senior high schools of that time met the LaPorte (3) standards. The mean score was fourteen. Ten of the forty-six respondent schools reported adequate gymnasium facilities as recommended. There was a substantial variance in floor areas of the gymnasiums, ranging from 2,040 square feet to 10,800 square feet. The mean area was 6,272 square feet.

Between 1966 and 1972 the accelerated building program for schools continued. This was necessary to accommodate the results of the post war increase in birth rate throughout Alberta and Canada. The continued growth of physical education and the presence of increased numbers of university trained physical educators throughout Alberta, enhanced programs and facilities in the schools. Gymnasium adequacy and functional use improved as the facilities grew larger. The range of square footage varied from 3,300 square feet to 17,568 square feet resulting in 1972 of a mean floor area of 6,849 square feet. This was a sizeable increase from the 1966 mean.

Gymnasium ceiling heights during the period 1952 to 1972 have improved in dimension. City high school gymnasium ceilings varied

in height from eighteen to twenty-two feet in 1952. In 1955 ceiling heights were reported ranging from twelve feet to twenty-five feet in the junior and senior high schools of Alberta. A large majority of the gymnasium ceiling heights were inadequate at this time. The 1966 survey revealed the senior high school gymnasium ceiling heights ranged from eighteen feet to thirty feet with a mean height of twenty-two feet. The mean height in senior high schools in 1972 was twenty-three feet.

Solid folding partitions in gymnasiums were almost non-existent up to 1955 when one was reported by the respondent schools. In the period from 1955 to 1966 a total of twenty-one were installed in the newly constructed schools or as improvements to the existing gymnasiums. The value of a partition became apparent during the period 1966 to 1972 when additional schools installed the facility. At the present time more than one half of the initial gymnasiums contain a solid folding partition divider.

Bleacher seating facilities were reported in a minority of schools up to 1955. From 1955 to 1966, however, folding bleachers were installed in a majority of the senior high schools. The popularity of interschool athletics and the increased versatile usage of gymnasium facilities for functions other than physical education or athletics, warranted this action. Folding seating facilities were reported in a large percentage of senior high schools in 1972.

The recommended standard of hardwood flooring for gymnasiums has been well adhered to during the period 1952 to 1972. Throughout this time approximately ninety percent of all schools surveyed had flooring

of this type in the gymnasiums.

During the period 1955 to 1966 increased enrollments necessitated the construction of second gymnasiums in many schools. While only five were reported in 1955, twenty of forty-six respondent senior high schools in 1966 reported a second gymnasium as part of the total school plant. This trend continued through to 1972 when data showed slightly less than fifty percent of senior high schools in Alberta reported second gymnasiums.

Additions of third gymnasiums were not reported until 1966 when six were recorded in the provincial senior high schools. Only one was added in the period from 1966 to 1972.

Physical education service areas such as shower rooms, separate drying rooms, dressing rooms and storage rooms were reported very inadequate in 1952 and 1955. The majority of schools which showed a lack of adequate gymnasium facilities were also deficient in locker and shower room facilities. In 1952 only twenty percent of the city high schools of Alberta met average accepted LaPorte (3) standards. In 1955 the junior and senior high schools responding, reported a similarly inadequate situation. Separate drying space was also insufficient in 1952 and 1955. A much improved situation was reported in both 1966 and 1972, however. Shower rooms and locker rooms were reported in approximately ninety percent of the Alberta senior high schools. Separate drying rooms again were reported in only one third of the schools.

Storage space for equipment was reported very insufficient in 1952 and a mere twenty-two of seventy-four respondent schools reported

such a facility in 1955. Equipment and supplies were in sufficient supply during this period but lack of storage space and proper maintenance reduced the long range utilization of this equipment. Storage area space allotments in 1966 and 1972 were increased markedly over allotments in former years. A mean of 423 square feet reported in 1966 improved to a mean area of 684 square feet in 1972 for this facility throughout the province.

Properly painted court lines on gymnasium floors came under the heading of installed gymnasium equipment. During the period from 1952 to 1972, a large majority of the formal gymnasiums reported in the schools, had sufficient court markings painted on the floors to meet the recommended standards. In 1952 all but one of the city high schools reported adequate court markings on the gymnasium floor. Grierson (4) in 1955 revealed that approximately one half of the seventy-four junior and senior high schools reported volleyball and basketball courts. This compared with the total that reported formal gymnasium facilities. Badminton court markings were not as numerous, however, with only twenty-four of seventy-four schools reporting these court markings. This trend varied somewhat in 1966 and 1972 when basketball and volleyball courts were reported installed on almost every floor in the senior high schools of Alberta. Badminton courts were also reported by approximately the same percentage of schools, however, the number of courts available in each school did not meet recommended standards. It should be pointed out that volleyball and particularly basketball courts can be found, almost universally, in every high school gymnasium in the province. It would seem that the gymnasiums were

built around these courts, and it follows that perhaps many gymnasiums would today be smaller were it not for the dimensions required to accommodate a regulation basketball court.

The quality and supply of high school portable gymnasium equipment has improved markedly in the period 1955 to 1972. McLachlin (2) in 1952 concluded that the majority of city high schools in Alberta had adequate equipment for class instruction, however, this equipment, due to lack of proper storage area and maintenance, was not kept in good condition. Gymnasium equipment in junior and senior high schools was not adequate in 1955. The most numerous items, gymnastic mats and vaulting horses, were reported in less than fifty percent of the schools. Such items as high bars and rings were reported in only six of the seventy-four schools responding. Again the lack of adequate facilities had a direct bearing on the amount and type of equipment which was necessary to utilize the facilities. By 1966 a noticeable improvement in equipment was reported. Such items as springboards and gymnastic mats were reported in a large majority of the schools. This too followed the trend of improved existing facilities and the increased construction of new facilities. The relationship between schools had also developed into one of quiet competition with regard to program and equipment. This may have added extra motivation for administrators to purchase new and up to date equipment. This trend continued on to 1972 when a majority of recommended equipment items were reported by more than eighty percent of the respondent schools.

Outdoor physical education areas of the city senior high schools of Alberta were inadequate according to McLachlin's (2) findings in

1952. Grierson (4), in contrast, commended the administration for adequate outdoor areas in 1955. In 1966 the results of a survey of senior high school outdoor areas again showed inadequate facilities with a mean score on the LaPorte (3) scale of ten points, considerably less than the recommended mean of fifteen points. In 1972 the traditional recommended field facilities, including football, soccer and fastball, were reported by a large majority of the respondent senior high schools. Other recommended areas such as field hockey, tennis courts and skating rinks, were reported by less than fifteen percent of the schools.

Swimming pools have been almost non-existent as a school board owned facility in Alberta schools since 1952. Fortunately, good planning by municipal leaders has led them to construct pools in close proximity to a majority of high schools. Several pools are built into senior high school plants in the City of Edmonton.

What will be the size and shape of high school gymnasium facilities of the future? The rectangular shaped conventional gymnasium may be replaced by geodesic dome structures. There are several factors in favor of the dome as suggested by the Educational Facilities Laboratories (5:2). These factors are:

1. The dome offers interior space unmarked by structural supports. Whatever barriers are placed within the structure can be dictated by the program of physical education, not by the need for holding up the roof. The mutable interior space of the dome offers freedom of movement for program and occupants. Whatever the nature of physical education is in this century and the next, the dome should be adaptable

enough to accommodate it.

2. Because of the repetitive nature of the component parts there is reason to believe that, should domed structures come into frequent use, the cost of enclosed space for physical education may well be reduced. Money which is thus freed from the cost of structure could well be invested in equipment and teaching to improve the physical education of all students. Even this prototype dome will cost somewhat less than a conventional gymnasium.

3. As a place of assembly the domed structure provides assembly in the round, an arrangement that may be superior to the rectangle.

4. The dome is architecturally exciting, offering a silhouette that brings relief from the rigid rectangular geometry of the conventional structure.

Air structures (6), which are buildings blown up and held up by air pressure, may also be utilized as a replacement for the conventional gymnasium. The military has successfully sponsored the development and testing of these structures under every possible weather condition in the arctic. The air structure's feature attraction is the ability to enclose large areas quickly and inexpensively. Because of its economy and versatility the air bubble may fit very neatly into the plans for future school physical education facilities in Alberta.

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CHAPTER IV

METHODS AND PROCEDURES

Introduction

To fulfill the purposes of this study it was necessary to obtain complete information concerning facilities and gymnasium equipment in the senior high schools of Alberta in order to compare this information to the standards recommended in May 1972 by the Facilities Committee of the Health and Physical Education Council of the Alberta Teachers Association.

Sources of Data

The records of the Department of Education for 1971-72 revealed that there were a total of sixty-five senior high schools located in all geographic areas of the province. These were all of the senior high schools which housed grades X, XI and XII in a separate school building. The information used in the evaluation of physical education facilities and gymnasium equipment was obtained through the efforts of Statistics Canada in Ottawa, the Alberta Department of Education, school superintendents and the principals and physical education teachers of each school.

Method of Obtaining Data

The questionnaire survey instrument utilized by the investigator was the Statistics Canada Survey of Physical Education Programmes and

Facilities in Canadian Schools. In Alberta, the Research Development and Examinations Branch of the Department of Education under the direction of Dr. J.E. Reid, was asked by Statistics Canada to distribute and collect the surveys to all schools in the province.

The survey questions used in the questionnaire reflected agreement among provincial directors of physical education on those subjects which would be of greatest value to all provincial departments of education, school superintendents, principals and teachers. The questionnaires were also designed to provide data required by national organizations concerned with sport, recreation and physical fitness. In constructing the survey questions, not only provincial departments of education but also a representative selection of school boards throughout the country were involved. The questions were then tested successfully in some school situations in a pilot study to determine the extent to which they could be answered with a minimum of difficulty.

The survey questionnaire consisted of two documents. The long form (Appendix E) was completed by the principal or his representative for each school with a gymnasium, a multi-purpose physical education room, a playing field suitable for team sports, or an outdoor hard surface area used for physical education activities. The short form (Appendix D) was completed for or by each teacher who devoted one-third or more of his regular school week to the school's physical education program.

The long form was divided into the following sections: identification and general information; physical education facilities; physical education program; community use of gymnasium facilities; and school

use of community facilities. For the purposes of this study the writer used the general information and facilities sections only.

Explicit instructions (Appendix C) were attached to each questionnaire. These instructions stated clearly that in counting and describing the number of gymnasiums in the facilities section, a gymnasium must be counted as one facility despite being divided by a solid or visual partition. Teaching areas were not to be equated with gymnasiums. Instructions were also given to report only on board owned facilities. In the case where two or more schools shared the same site and shared the use of board owned facilities, each school was to report on the facilities as if they were its own. Community owned facilities located on or near the school site were not to be reported.

The questionnaires and pre-addressed return envelopes were mailed to all schools in Alberta on April 4, 1972 from the office of Dr. J.E. Reid, Director of Research, Development and Examinations, Department of Education, Edmonton, Alberta. Letters were also sent to all principals (Appendix B) and superintendents (Appendix A) of schools, requesting their full cooperation and support in returning all forms by April 30, 1972.

Permission for the writer to use the appropriate sections of the questionnaire was requested by Dr. Reid from Mr. J.E. Wicks, Chief of the Cultural Information Centre, Education Division, Statistics Canada in Ottawa. This permission and the personal support of Dr. Reid were duly granted. When the completed questionnaires were returned, copies of the general information and facilities sections were presented to

the writer.

Analysis of the Data

In all, fifty-nine of the sixty-five senior high schools of Alberta returned completed questionnaires for a net return of ninety-one percent. Thirty-five of the schools were located in cities and twenty-four were located in towns.

The enrollments of the fifty-nine respondent schools ranged from 200 students to 2,400 students, resulting in a mean enrollment of 907 students. Twenty-three schools came within the enrollment range of 200 to 600 students, eighteen schools came within the enrollment range of 601 to 1,200 students, fifteen schools came within the enrollment range of 1,201 to 1,800 students and three schools came within the enrollment range of 1,801 to 2,400 students. A summary of student enrollments of the fifty-nine respondent schools is presented in Table I.

TABLE I
SUMMARY OF STUDENT ENROLLMENTS OF FIFTY-NINE
RESPONDENT SCHOOLS

	Enrollment Range of 200 to 600 Students	Enrollment Range of 601 to 1,200 Students	Enrollment Range of 1,201 to 1,800 Students	Enrollment Range of 1,801 to 2,400 Students
Number of schools of fifty-nine re- sponding falling within range	23	18	15	3
Percentage of schools of fifty- nine responding falling within range	39%	31%	25%	5%

The years of operation of the fifty-nine respondent schools ranged from one year to sixty years, which resulted in a mean of twelve years of operation per school. Of the schools currently functioning as senior high schools, two were constructed prior to 1930; one was constructed between 1931 and 1940; three were constructed between 1941 and 1950; sixteen were constructed between 1951 and 1960; and thirty-seven were constructed between 1961 and 1972. A summary of information concerning the year of construction of the fifty-nine respondent schools appears in Table II.

TABLE II
SUMMARY OF YEAR OF CONSTRUCTION OF SCHOOLS

	Constructed Prior to 1930	Constructed Between 1931 and 1940	Constructed Between 1941 and 1950	Constructed Between 1951 and 1960	Constructed Between 1961 and 1972
Number of schools of fifty-nine responding	2	1	3	16	37
Percentage of schools of fifty- nine re- sponding	3%	2%	5%	27%	63%

Thirty-two of the fifty-nine respondent schools were functioning with one gymnasium in the school. The enrollment of these schools ranged from 200 students to 1,180 students with a mean enrollment of 520 students. Nineteen schools reported two gymnasiums in operation

in the school. The enrollments of these schools ranged from 579 students to 2,400 students, with a mean enrollment of 1,315 students. Three gymnasiums were reported in seven schools with enrollments ranging from 1,030 students to 2,250 students. The mean enrollment of these schools was 1,640 students. The number of gymnasiums reported by schools and enrollments of these schools is summarized in Table III.

TABLE III
SUMMARY OF NUMBER OF GYMNASIUMS AND
ENROLLMENTS REPORTED PER SCHOOL

	Number of Schools of Fifty-nine Responding	Percentage of Schools of Fifty-nine Responding	Enrollment Range of Schools	Mean Enrollment
Schools reporting one gymnasium	32	54%	200 students to 1,180 students	520 students
Schools reporting two gymnasiums	19	32%	579 students to 2,400 students	1,315 students
Schools reporting three gymnasiums	7	12%	1,030 students to 2,250 students	1,640 students

CHAPTER V

RESULTS AND DISCUSSION

Introduction

The Facilities Committee of the Health and Physical Education Council of the Alberta Teachers' Association is a ten member body comprised of physical education teachers, supervisors of physical education, physical education consultants, and school principals from various geographic areas of the province. The body was formed as a result of the 1967 annual meeting of the Health and Physical Education Council of the Alberta Teachers' Association, where much concern was expressed regarding physical education facilities in Alberta schools. The Facilities Committee was formed and charged with the responsibility of writing a brief to the Alberta government to express the concerns of the membership.

Subsequently, a brief was prepared and presented in December, 1970 to the then Minister of Education, The Honorable Robert Clarke, who arranged for a future meeting involving himself, members of the School Buildings Board and members of the Health and Physical Education Council Facilities Committee. A tangible result was the addition of one hundred and sixty square feet of area to the initial gymnasium of Category B schools (1:6) having an enrollment of at least two hundred pupils, of which one hundred or more are enrolled in Grade VII or above.

The Facilities Committee continued to function between 1970 and May 1972 during which time revisions to the initial brief were

completed. This chapter will compare the results of the Statistics Canada questionnaire survey instrument to the standards recommended by the committee in the revised printing (2). The comparison shall be completed under the following headings:

1. Gymnasium Specifications
2. Service Areas
3. Installed Gymnasium Equipment
4. Portable Gymnasium Equipment
5. Outdoor Areas
6. Swimming Pools

Gymnasium Specifications

Gymnasium-auditorium. The Facilities Committee (2:29) recommended a stage should be located at one end of a gymnasium in the school to provide for assemblies, rallies, awards days, graduation exercises and other special events. Of the fifty-nine schools responding, forty-nine reported a combination gymnasium-auditorium facility, while thirty-three of these reported this as being their only facility. Four reported having more than one gymnasium-auditorium and nine indicated having only a single purpose gymnasium without a stage. Nine schools had more than one single purpose gymnasium while sixteen contained both gymnasium-auditorium and single purpose facilities. One school reported having no gymnasium facilities. The information concerning the number of schools reporting gymnasium-auditoriums and single purpose gymnasiums is summarized in Table IV.

TABLE IV
SUMMARY OF GYMNASIUM FACILITIES

	Gymnasium Facilities	Gymnasium- Auditorium	Gymnasium- Auditorium Only	More Than One Gymnasium- Auditorium	Single Purpose Gymnasium	More Than One Single Purpose Gymnasium	Gymnasium- Auditorium and Single Purpose Gymnasium
Number of schools of fifty-nine responding	58	49	33	4	9	9	16
Percentage of respond- ent schools	98%	83%	56%	7%	15%	15%	27%

Initial gymnasium. The Facilities Committee (2:27) recommended that regardless of the number of classrooms planned for a senior high school in the initial stage, the first gymnasium must be of a size sufficient to be considered a two-station structure.

I. Floor area. The recommended size for the initial two-station gymnasium was 9,984 square feet (96' x 104'). Only four of the fifty-eight schools reporting gymnasium facilities met or exceeded this standard. These schools had enrollments over nine hundred students, were built since 1953 and were city schools. The initial gymnasium floor areas of the fifty-eight schools reporting, ranged in area from 3,300 square feet to 17,568 square feet with a mean area of 6,849 square feet, 3,135 less than the 9,984 recommended. The lengths of floors ranged from seventy-four feet to 144 feet with a mean length of ninety-six feet. Eight schools reported the recommended standard length of 104 feet or more. The widths of floors ranged from forty-four feet to 122 feet with a mean width of sixty-nine feet. Only three schools reported the recommended standard width of ninety-six feet or more. A summary of the information concerning floor area of the initial gymnasiums is shown in Table V.

II. Ceiling height. The recommended ceiling height to the lowest projection was twenty-four feet (2:28). The ceiling height of the schools reporting ranged from eighteen feet to thirty-two feet, with a mean height of twenty-three feet. Twenty-four of the fifty-eight schools reported the recommended height of twenty-four feet or more. The summary of information concerning ceiling height is contained in Table V.

TABLE V
SUMMARY OF INITIAL GYMNASIUM,
FLOOR AREA AND CEILING HEIGHT

	Standard Recommended For			
	Floor Length 104'	Floor Width 96'	Floor Square Footage 9,984	Ceiling Height 24'
Number of schools of fifty-nine responding that met or exceeded standard	8	3	4	24
Percentage of respondent schools that met or exceeded standard	14%	5%	7%	41%
Range of schools reporting	74' to 144'	44' to 122'	3,300 square feet to 17,568 square feet	18' to 32'
Mean of schools reporting	96'	69'	6,849 square feet	23'

III. Partition. The Facilities Committee (2:27) recommended a solid, sound-proof, folding partition must be installed in the initial gymnasium to facilitate its use as a two-station facility. Thirty-one schools reported a solid, folding partition as required in the recommendation. Four schools had only a curtain dividing the facility, while twenty-four had no dividing mechanism. A summary of information concerning the partitions is found in Table VI.

IV. Flooring. The recommended flooring (2:28) was hardwood maple on plywood, on two inch by four inch sleepers, resting on a concrete pad. The types of flooring that are attached to a concrete pad by an

adhesive were not recommended. Fifty-four schools reported a hardwood floor in the initial gymnasium while four schools are equipped with the improper tile flooring. Three of these schools were located in towns, one was located in a city. A summary of information concerning flooring is found in Table VI.

V. Bleachers. Fold away bleachers sufficient to accommodate approximately 800 spectators were recommended by the Facilities Committee (2:34) for the initial gymnasium. Thirty-nine schools reported this type of folding seating facility as part of the gymnasium while thirteen reported a permanent seating arrangement. Six schools reported both permanent and folding bleachers. The seating capacity of schools with seating facilities ranged from one hundred to 1,700, with a mean of 594 seats, 286 less than the recommended capacity. Fourteen schools had a seating capacity of 800 seats or more as recommended. Twelve schools had no seating facilities in the initial gymnasium. Eleven of the twelve schools without bleachers were located in towns, one was a city school. Table VI includes a summary of the information concerning bleachers.

Second gymnasium. When the initial gymnasium is scheduled for use in excess of seventy-five percent of total school time, the Facilities Committee (2:27) recommended a second gymnasium, somewhat smaller in area, should be constructed. Of the fifty-nine schools responding, twenty-six reported second gymnasiums. Twelve of these were added as improvements following the construction of the main school plant. The enrollment of the twenty-six schools with second

TABLE VI
SUMMARY OF INITIAL GYMNASIUM PARTITION, FLOORING AND BLEACHERS

	Partition		Flooring		Bleachers			
	Solid	Curtain	Hardwood	Tile	Folding	Permanent	Combination Permanent and Folding	No Seating Facilities
Number of schools of fifty-nine responding	31	4	54	4	39	13	6	12
Percentage of respondent schools	53%	7%	92%	7%	66%	22%	10%	20%
Range of Seating Capacities 100 to 1,700 seats								
Mean Capacity 594 seats								

gymnasiums ranged from 579 to 2,400 students, with a mean enrollment of 1,402 students. Twenty-five of the schools were city schools and one a town school.

I. Floor area. The Facilities Committee (2:27) recommended the second gymnasium, when necessary, should consist of an area of 5,940 square feet (66' x 90'). Five of the twenty-six schools reporting second gymnasiums met or exceeded this standard. The five schools were city schools with enrollments over 1,600 students. The floor areas of the twenty-six schools with second gymnasiums ranged in area from 2,448 square feet to 9,600 square feet with a mean area of 4,662 square feet, 1,278 less than the 5,940 recommended. The length of floors ranged from sixty feet to 120 feet with a mean length of eighty-two feet. Six schools reported the recommended length of ninety feet or more. The width of floors ranged from thirty-six feet to eighty feet with a mean width of fifty-five feet. Seven schools met or exceeded the recommended standard width of sixty-six feet. A summary of the information concerning floor area of the second gymnasium is shown in Table VII.

II. Ceiling height. The ceiling height recommended by the Facilities Committee (2:28) was twenty-four feet. Of the twenty-six schools reporting second gymnasiums, twelve met or exceeded this standard. The ceiling heights of the schools ranged from sixteen feet to thirty-two feet, with a mean height of twenty-three feet. Ceiling height information is summarized in Table VII.

III. Partition. In view of the multiplicity and variety of activities provided, the Facilities Committee (2:27) recommended a

TABLE VII
SUMMARY OF SECOND GYMNASIUM
FLOOR AREA AND CEILING HEIGHT

	Standard Recommended For			
	Floor Length 90'	Floor Width 66'	Floor Square Footage 5,940	Ceiling Height 24'
Number of schools of twenty-six reporting second gymnasiums that met or exceeded standard	6	7	5	12
Percentage of twenty-six schools reporting second gymnasiums that met or exceeded standard	23%	27%	19%	46%
Range of schools reporting second gymnasiums	60' to 120'	36' to 80'	2,448 square feet to 9,600 square feet	16' to 32'
Mean of schools reporting second gymnasiums	82'	55'	4,662 square feet	23'

solid sound proof folding door must also be installed in the second gymnasium. Five of the twenty-six schools reporting second gymnasiums, met this requirement. One school used a dividing curtain for the second gymnasium, while twenty schools had no dividing mechanism. A summary of information concerning partitions is found in Table VIII.

IV. Flooring. Hardwood flooring was recommended (2:28) for the second gymnasium floor, while flooring attached to a concrete pad by an adhesive was not recommended. Twenty-four of the twenty-six schools

reporting a second gymnasium met this standard. Two floors had a tile covering. The information concerning flooring is found in Table VIII.

V. Bleachers. A recommendation regarding bleachers for the second gymnasium was not made by the Facilities Committee. Of the twenty-six schools, however, six reported having folding bleachers in the second gymnasium and three reported a permanent seating facility. Two schools reported both folding and permanent bleachers. The seating capacity of schools with bleachers in the second gymnasium ranged from 150 to 1,500, with a mean of 553 seats. Nineteen of the twenty-six schools had no seating facilities in the second gymnasium. Table VIII includes a summary of the information concerning second gymnasium bleachers.

Third gymnasium. A recommendation for a third gymnasium in the senior high schools of Alberta was not made by the Facilities Committee. Seven of the fifty-nine respondent schools reported having a third gymnasium as part of the facilities, however. All of these schools were located in cities, with an enrollment ranging from 1,030 students to 2,250 students. The mean enrollment was 1,640. Four of the third gymnasiums reported were added as improvements to the schools subsequent to the construction of the initial school plant. The range of floor area in the seven gymnasiums was 2,448 square feet to 8,400 square feet, with a mean area of 3,899 square feet. The length of floors ranged from sixty-five feet to 120 feet resulting in a mean length of seventy-six feet. The width of floors ranged from thirty-six feet to seventy feet with a mean width of forty-nine feet. Ceiling

TABLE VIII

SUMMARY OF SECOND GYMNASIUM PARTITIONS, FLOORING AND BLEACHERS

	Partition		Flooring		Bleachers			
	Solid	Curtain	Hardwood	Tile	Folding	Permanent	Combination Permanent and Folding	No Seating Facilities
Number of schools of twenty-six reporting second gymnasiums	5	1	24	2	6	3	2	19
Percentage of twenty-six schools reporting second gymnasiums	19%	4%	92%	8%	23%	12%	8%	73%
Range of Seating Capacities 150 to 1,500 seats								
Mean Capacity 553 seats								

heights ranged from sixteen feet to thirty feet resulting in a mean height of twenty-one feet. Only one of the seven schools reporting third gymnasiums was equipped with a solid, folding partition. The flooring in five of the gymnasiums was hardwood while two were covered with tile. A summary of the information concerning the third gymnasium reported is presented in Table IX.

Service Areas

The service areas of a school complement the gymnasium facilities in providing the location for an efficient, healthful, physical education program. Service areas include: storage rooms, shower rooms, change rooms, and towelling rooms.

The Facilities Committee (2:29) recommended a minimum total area of 1,200 square feet should be provided for storage of equipment and supplies. Twelve of the fifty-nine respondent schools met this standard. All of these schools were city schools with enrollments ranging from 720 students to 2,400 students, resulting in a mean enrollment of 1,552 students. Of the fifty-eight schools reporting storage facilities, the floor areas ranged from 100 square feet to 1,700 square feet, resulting in a mean area of 684 square feet, 516 square feet less than the standard recommended.

A recommendation to include shower rooms, change rooms and towelling areas in the service area was made by the Facilities Committee. Fifty-seven of fifty-nine respondent schools reported shower rooms as a part of the service area. Change rooms were reported in fifty-five

TABLE IX

SUMMARY OF THIRD GYMNASIUM INFORMATION

	Floor Length	Floor Width	Floor Area	Ceiling Height	Partition		Flooring	
					Solid	Curtain	Hardwood	Tile
Range of seven schools reporting third gymnasiums	65' to 120'	36' to 70'	2,448 square feet to 8,400 square feet	16' to 30'				
Mean of seven schools reporting third gymnasiums	76'	49'	3,899 square feet	21'				
					1	0	5	2
					14%		71%	29%

schools while twenty-two schools reported separate towelling rooms.

A summary of information concerning storage rooms, shower rooms, change rooms and towelling rooms is presented in Table X.

TABLE X
SUMMARY OF SERVICE AREAS

	Storage Area (Standard Recommended 1,200 Square Feet)	Shower Room	Change Room	Towelling Room
Number of schools of fifty-nine re- sponding	12	57	55	22
Percentage of schools of fifty- nine responding	20%	97%	93%	37%
Range of fifty- nine schools re- sponding	100 square feet to 1,700 square feet			
Mean of fifty- nine schools re- sponding	684 square feet			

Installed Gymnasium Equipment

The Facilities Committee (2:34) recommended a regulation basketball court with motorized retractable backboards should be provided in the initial gymnasium. Fifty-eight of the fifty-nine respondent schools met this standard by reporting at least one main court in the school. Thirteen schools reported an additional regulation basketball court. The availability of two intramural cross courts was also recommended (2:34). Fifty-three schools met this standard while six of these

schools reported three courts, eleven schools reported four courts, and two schools reported six intramural courts in the school.

The Facilities Committee (2:34) recommended that one regulation volleyball court located lengthwise in the gymnasium, with floor sockets and anchor plates for heavy duty posts, be provided. Fifty-two of the fifty-nine respondent schools met this standard. Eighteen of these schools reported an additional regulation volleyball court while two schools reported three regulation courts. Two cross-gymnasium volleyball courts, each with floor sockets and anchor plates for heavy duty posts, were also recommended by the committee for each school. Fifty-one of fifty-nine schools reported meeting this standard. Three of these schools reported three cross-gymnasium volleyball courts, fifteen reported four cross courts, three reported five cross courts and three reported eight cross-gymnasium volleyball courts in the school.

A total of eight regulation badminton courts with floor sockets for posts were recommended for each school by the Facilities Committee (2:34). Of the fifty-nine respondent schools, thirteen met this standard. Nine of these schools reported nine regulation badminton courts while three schools reported regulation courts totalling ten, twelve and twenty-two respectively. A summary of information concerning installed gymnasium equipment is presented in Table XI.

Portable Gymnasium Equipment

The list of portable gymnasium equipment recommended by the

TABLE XI
SUMMARY OF INSTALLED GYMNASIUM EQUIPMENT

	Standard Recommended For				
	One Regulation Basketball Court	Two Intramural Basketball Courts	One Regulation Volleyball Court (Lengthwise in Gymnasium)	Two Cross-Gymnasium Volleyball Courts	Eight Regulation Badminton Courts
Number of schools of fifty-nine responding that met recommended standards	58	53	52	51	13
Percentage of schools of fifty-nine responding that met recommended standards	98%	90%	88%	86%	22%

Facilities Committee (2:35) was comprised of seventeen items regarded as vital to the success of the senior high school physical education programs in Alberta. Fifty-eight of the fifty-nine respondent schools reported badminton standards as part of the portable gymnasium equipment on hand, which proved to be the most universally available item. The vaulting horse and gymnastic mats were reported by fifty-seven and fifty-six schools respectively. A wrestling mat, balance bench and uneven parallel bars were shown to be least available with twenty-eight, thirty-four and thirty-five schools respectively, reporting these items. Complete information concerning portable gymnasium equipment is presented in Table XII.

Outdoor Areas

The Facilities Committee (2:36) recommended a senior high school site situation on a site consisting of a total area of twenty-eight acres, ten acres of which would be used for the building proper with the remainder utilized for playing fields, parking area and ornamental areas adjacent to the building. The outdoor areas for instruction should be so situated that they are in close proximity to the dressing rooms and other service areas. All of the fifty-nine respondent schools reported outdoor areas adjacent to the school.

Running track. A standard 440 yard outdoor running track was recommended for high schools by the Facilities Committee (2:36). Twenty-six of fifty-nine schools responding met this standard. One

TABLE XII
SUMMARY OF PORTABLE GYMNASIUM EQUIPMENT

Recommended Portable Gymnasium Equipment	Number of schools of fifty-nine responding which have item of equipment in the school	Percentage of schools of fifty-nine responding which have item of equipment in the school
Badminton Standards	58	98%
Vaulting Horse	57	97%
Gymnastic Mats	56	95%
Parallel Bars	54	92%
Volleyball Standards	52	88%
Climbing Ropes	50	85%
Rings	49	83%
Horizontal Bar	49	83%
Balance Beam	48	81%
Pommel Horse	48	81%
Beat Board	47	80%
Springboard	47	80%
Landing Pits	47	80%
Trampoline	42	71%
Uneven Parallel Bars	35	59%
Balance Bench	34	58%
Wrestling Mat	28	47%

school reported a 220 yard track as a portion of outdoor facilities available.

Playing fields. A combination of fields including soccer, football, fastball, and field hockey were recommended by the Facilities Committee (2:36). Each football or soccer field should be equipped with combination

soccer-football goals. Each fastball field should be provided with a canopy type backstop. A football field with goal posts was the most universal field available, as forty-eight of the fifty-nine schools reported this facility adjacent to the building. Forty-six schools reported a soccer field as part of the outdoor area, while forty-one reported fastball fields as a part of the outdoor area. Only six schools met the standard for a field hockey field and goals.

Skating rink. The Facilities Committee (2:36) recommended a skating rink, lighted for evening use, should be located adjacent to the school. Only four of fifty-nine schools responding met this standard. All of these schools were located in cities.

Tennis courts. Four tennis courts in combination with the skating rink were recommended by the Facilities Committee (2:36). Seven of the fifty-nine responding schools reported meeting the standard. Four of these schools were located in cities and three in towns. A summary of information concerning outdoor areas is presented in Table XIII.

Swimming Pools

A strong recommendation, that every high school in Alberta include a swimming pool as part of the physical education facilities, was made by the Facilities Committee (2:37). It was suggested that if this is impossible in the original school plan, then care must be taken in designing the site layout for the school and playing fields so that

TABLE XIII

SUMMARY OF OUTDOOR AREAS

	Running Track 440 yd.	Football Field With Goal Posts	Soccer Field With Goal Posts	Fastball Field With Canopy Backstop	Field Hockey Field With Goals	Skating Rink	Tennis Courts (4)
Number of schools of fifty-nine reporting outdoor areas	26	48	46	41	6	4	7
Percentage of fifty- nine schools report- ing outdoor areas	44%	81%	78%	69%	10%	7%	12%

future construction of a swimming pool on the same site is possible. Only one school of the fifty-nine schools responding, reported a school board owned swimming pool as part of the facilities on the school grounds. A majority of the schools are conducting swimming programs, however, by utilizing municipally owned and operated swimming pools. From information received from the 1971 Alberta Waterworks, Sewerage and Swimming Pools Survey (3), and Mr. A.G. Gilmet (4), Alberta Director of Water Safety, Canadian Red Cross Society, it was possible to estimate that thirty-eight of the sixty-five senior high schools in Alberta have direct and convenient access to a swimming pool during daytime hours. Twenty-four of these schools have access to outdoor pools and fourteen have access to indoor pools. In the City of Edmonton, at the present time, eight senior high schools have municipally owned swimming pools built into the school plant.

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CHAPTER VI

SUMMARY AND CONCLUSIONS

Summary

It was the purpose of this study to determine and evaluate the present status of the Alberta senior high school physical education facilities and gymnasium equipment, with the intention of comparing the results to the standards recommended in May, 1972 by the Facilities Committee of the Health and Physical Education Council of the Alberta Teachers' Association.

The questionnaire survey method was used to gather the necessary information for the study. The survey instrument utilized was the Statistics Canada Survey of Physical Education Programmes and Facilities in Canadian Schools. The survey was distributed, and collected, to all Alberta senior high schools by the Research Development and Examinations Branch of the Alberta Department of Education. Questionnaires were sent to the principals and physical education teachers of the sixty-five senior high schools of Alberta housing only grades X, XI and XII in one school plant. Teachers devoting one-third or more of their time to physical education classes, and principals, received separate sections of the questionnaire to complete at each school. Questionnaire sections on facilities and gymnasium equipment were used for the investigation. Analysis of the data was made through the use of comparative tables.

Conclusions

Generally, the gymnasium facilities of the senior high schools of Alberta were not adequate when compared to the standards recommended. The useful and vital gymnasium-auditorium facility combination was not universal among the schools despite the necessity of a stage for assemblies, rallies, awards days, graduation exercises and other special events.

The initial gymnasium floor areas were very inadequate in comparison to the standard recommended. A mere seven percent of the respondent schools reported required square footage for floor areas when compared to the standard. Recommended ceiling height in the initial gymnasium was indicated by forty-one percent of the schools. Forty-seven percent of the schools did not have a solid folding partition in the initial gymnasium as recommended. Flooring throughout the gymnasiums in Alberta senior high schools is quite adequate with ninety-two percent of these schools meeting the standard of hardwood flooring. Twenty-four percent of the schools did not have bleacher seating in the initial gymnasium. Fourteen of those schools which reported seating facilities would not accommodate the recommended number of persons.

The second gymnasiums of Alberta senior high schools were also inadequate when compared to the recommended standards for these gymnasiums. Only five of twenty-six schools reported a satisfactory floor area and less than half of the schools reported the required ceiling height. Less than twenty percent of the gymnasiums were equipped with a solid, folding partition. The recommended hardwood floor was

installed in ninety-two percent of the gymnasiums, however.

Shower rooms and change rooms in the service areas were quite adequate. These facilities were reported in well over ninety percent of the schools. The amount of storage space for equipment and a separate towelling room were facets of the service area which did not meet the recommended standards.

The recommended installed gymnasium equipment was reported in almost 100 percent of the schools responding. The main basketball courts, basketball cross-courts, main volleyball courts and volleyball cross-courts were almost universally reported. The recommended eight badminton courts were not available in seventy-eight percent of the schools.

The portable gymnasium equipment throughout the high schools in Alberta was satisfactory. A large percentage of the equipment items were indicated in a majority of the schools. The two articles of equipment least reported were uneven parallel bars and wrestling mats, which were indicated to be in approximately fifty percent of the schools.

The outdoor facility areas were somewhat less than adequate when compared to the recommended standards. Skating rinks, tennis courts and field hockey fields with goals, were reported by less than fifteen percent of the schools. Running tracks were provided in less than fifty percent of the outdoor areas, but the more traditional football, soccer and fastball facilities were reported by seventy-five percent of the schools responding.

School board owned swimming pools throughout the province are almost completely lacking. Only one school reported a swimming pool of this kind. A majority of the senior high schools have access to

municipal pools, however. In the City of Edmonton, as an example, eight municipally owned pools have been built into city high school buildings, an innovation worth copying.

Recommendations

A number of recommendations may be made based on the results of this study.

To assist personnel responsible for the planning of programs and facilities in physical education throughout the province, continuous evaluation of requirements for physical education at all levels must be carried out.

Research results should be made available to everyone concerned with physical education in the province. The Statistics Canada Survey results will be mailed to provincial departments of education, superintendents of schools and principals, throughout the country.

Community use of school physical education facilities and equipment should be encouraged. This would result in better facilities because of the more universal and efficient utilization.

The planning of future school facilities should involve school boards and municipal government bodies in a joint effort. This appears vital because of community and school usage and spiralling construction costs of buildings.

Personnel at all levels of government and education must be made aware of the standards being strived for by the Facilities Committee of the Health and Physical Education Council of the Alberta Teachers'

Association.

The preparation of complete and sound program specifications is an important contribution that can be offered by physical education specialists when participating in the planning of a new facility, or in improving an existing building. When this opportunity for participation arises, the program requirements must be stated as completely as possible with the intention of attaining the goal of adequate and successful school buildings.

The physical education specialists throughout the provinces must be prepared, and eager, to participate in writing building specifications for new facilities or improvements of existing buildings, if the recommended standards are to be met. These specifications present those requirements which can best be put in writing, including such necessities as quality and methods to be employed in materials, area requirements and workmanship. The buildings specifications have an important role in assisting the architect in providing functional facilities.

As a result of this study, further research in several areas would be useful.

A separate study should be made of the current community use of all school facilities throughout the province. It would also be useful to determine the current school use of municipally owned facilities.

A study could be conducted to investigate the new, innovative buildings available and the suitability of these for Alberta schools.

Current research on qualifications, responsibilities and programs of senior high school physical education teachers in Alberta could be

carried out to compare the relationship to the availability of facilities.

A study could be conducted to investigate the influence of the game of basketball on gymnasium size and shape in Alberta schools.

Based on changes which have taken place during the past twenty years, continued research and evaluation should be carried out at the elementary and junior high school levels of physical education program and facilities.

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APPENDIX A

April 4, 1972

From: J.E. REID, D.ED.
DIRECTOR OF RESEARCH,
DEVELOPMENT AND EXAMINATIONS
DEPARTMENT OF EDUCATION
EDMONTON, ALBERTA

To: ALL SUPERINTENDENTS OF SCHOOLS

Statistics Canada has had under consideration for some time the possibility of conducting a survey of physical education programmes and facilities in Canadian schools. My office, the Research, Development and Examinations Branch of the Department of Education, has been asked to assist Statistics Canada in the distribution and collection of the surveys to schools in the Province of Alberta.

The survey questions being used reflect agreement among provincial directors of physical education on those subjects which will be of greatest value to departments of education. The questionnaires are also designed to provide data required by national organizations concerned with sport, recreation and physical fitness, but, in all except a few instances, provincial needs more than adequately cover needs at the national level.

In constructing the survey questions, not only provincial departments of education but also a representative selection of school boards throughout the country were involved. The questions were then tested in some school situations to determine the extent to which they could be answered with a minimum of difficulty.

The survey consists of two documents: the long form should be completed for each school which meets the criteria set out at the top of the form; the smaller, short form should be completed for (or by) each teacher who devotes one-third or more of his regular school week to the school's physical education programme. A supply of both forms, sufficient (we hope) to cover all schools within your jurisdiction, are enclosed.

We look forward to your co-operation in returning to this office, the completed returns from your schools as soon as possible. While trying not to be unrealistic in establishing "deadline dates", we would hope to have your reports returned to this office before the end of April. To assist in the return mailing, we are enclosing pre-addressed envelopes for your convenience.

When the reports for the schools of your jurisdiction have been received and processed, Statistics Canada will prepare a print-out of data recorded for each of your schools. A copy of this listing will be returned to your office for your personal use. Statistics Canada will also be able to make available to you, on request and without charge, statistical tables for your province and for regions or groups of school boards within your province. Inquiries should be directed to Mr. J.E. Wicks, Chief of the Cultural Information Centre, Education Division, Statistics Canada, Ottawa.

Thank you very much for your co-operation and support, without which this important survey could not be carried out successfully.

J.E. Reid

JER/eik

Enclosure

APPENDIX B

April 4, 1972

From: J.E. REID, D.ED.
DIRECTOR OF RESEARCH,
DEVELOPMENT AND EXAMINATIONS
DEPARTMENT OF EDUCATION
EDMONTON, ALBERTA

To: ALL PRINCIPALS

Statistics Canada has had under consideration for some time the possibility of conducting a survey of physical education programmes and facilities in Canada schools. My office, the Research, Development and Examinations Branch of the Department of Education, has been asked to assist Statistics Canada in the distribution and collection of the surveys to schools in the Province of Alberta.

The survey questions being used reflect agreement among provincial directors of physical education on those subjects which will be of greatest value to departments of education. The questionnaires are also designed to provide data required by national organizations concerned with sport, recreation and physical fitness, but, in all except a few instances, provincial needs more than adequately cover needs at the national level.

In constructing the survey questions, not only provincial departments of education but also a representative selection of school boards throughout the country were involved. The questions were then tested in some school situations to determine the extent to which they could be answered with a minimum of difficulty.

The survey consists of two documents: the long form should be completed for each school which meets the criteria set out at the top of the form; the smaller, short form should be completed for (or by) each teacher who devotes one-third or more of his regular school week to the school's physical education programme. A supply of forms, sufficient (we hope) are enclosed.

We look forward to your co-operation in returning to this office your completed forms as soon as possible. While trying not to be unrealistic in establishing "deadline dates", we would hope to have your reports returned to this office before the end of April. To assist in the return mailing, we are enclosing pre-addressed envelopes for your convenience.

Statistics Canada will prepare reports for all schools within your district. These print-outs will be forwarded to your Central Office for distribution.

Thank you very much for your co-operation and support, without which this important survey could not be carried out successfully.

J.E. Reid

JER/ejk

Enclosure

APPENDIX C

SURVEY OF PHYSICAL EDUCATION IN CANADIAN SCHOOLS

- General Instructions:
- (1) Please use pencil in completing the questionnaires.
 - (2) Disregard shaded areas: they are for office use only.
 - (3) Please read the explanations before completing the forms.

Explanations:

This survey is designed to provide provincial Departments of Education, school boards and national organizations with detailed comparable data on physical education programmes, facilities and teachers.

Please take care to complete the questionnaires as completely and as accurately as possible. Estimates are acceptable where exact figures are not available.

The questions used in the survey have been developed in close co-operation with Departments of Education and representative school boards throughout the country. Field tests have shown that definitions for the data items are not generally required, but to ensure comparability of reporting the following points are emphasized:

1. In counting and describing the number of gymnasiums in Section B, items 2 and 3, if a large gymnasium is divided by partition(s) (visual or solid divider) into two or more separate teaching areas, count this as ONE gymnasium. Do not equate gymnasiums with teaching areas.
2. In Section B, items 8 to 12, report only on board-owned facilities. In the case where two or more schools share the same site and share the use of board-owned facilities, each school should report on the facilities as if they were "its own". Community-owned facilities located on or near the school site should not be reported.
3. SECTION C, item 1. Physical education instructional programme
 - (a) Programme status. Please designate as follows:
 - "O" to mean that participation in the programme is optional
 - "C-O" to mean that the programme is compulsory but with electives
 - "C" to mean that participation in the programme is compulsory and without electives.
 - (b) "Number of classes for each grade" refers to the number of physical education instructional classes. Where two or more "regular" classes combine for P.E. instruction, this should be counted as one class.
4. SECTION C, item 6. Interscholastic programme

In indicating the coaches for each of the interscholastic teams, please use the designation at the end of page 3. There is no need to count the number of coaches for each category, nor to give their names.

5. Physical Education Teacher's Report, item 4, Social Insurance Number. This number is requested for purposes of numerical identification only. The name of the respondent is required only as an aid to ensure completeness of reporting.

APPENDIX D

Statistics Canada

Education Division
Cultural Information Section

ALBERTA

PHYSICAL EDUCATION TEACHER'S REPORT

One copy of this form should be completed by each teacher who devotes one-third or more of his regular school week to the physical education programme.

1. Name of school board	2. Name of school	School number
3. Name of teacher		4. Social Insurance Number
5. Sex 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female	6. Employment status: 1 <input type="checkbox"/> Full-time 2 <input type="checkbox"/> Part-time	7. Percentage of regular school week spent with the physical education instructional programme 1 <input type="checkbox"/> 100%; 2 <input type="checkbox"/> 75%-99%; 3 <input type="checkbox"/> 50%-74%; 4 <input type="checkbox"/> under 50%

8. If teaching subjects other than physical education, list subjects taught. (choose code numbers from the list below, or specify). This question should be completed by high school teachers only.

9. If holder of university degree(s)

Degree	Specialization	University granting the degree	For office use		

10. If you do not hold a university degree with specialization in physical education, have you completed post-secondary studies with emphasis in physical education? 1 ☐ Yes
2 ☐ No

11. Work load (give approximate averages where work load over the complete school year is not evenly distributed)

- (a) Number of hours per week for P.E.
instructional classes _____
- (b) Number of hours per week for other
instructional classes _____
- (c) Number of hours per week for intra-
murals (including practice time) _____
- (d) Number of hours per week for inter-
scholastics (including practice time) _____
-

List of subject areas for use with question 8 above.

- | | | |
|------------------|--|--------------------------------|
| 01 Mathematics | 04 English | 07 Health |
| 02 Biology | 05 Languages (modern
or classical) | 08 Guidance and
counselling |
| 03 Other science | 06 Social studies (includ-
ing history, geography,
civics, etc.) | 09 Other |
-

APPENDIX E

Statistics Canada

Education Division
Cultural Information Section

ALBERTA

SURVEY OF PHYSICAL EDUCATION IN CANADIAN SCHOOLS

One copy of this form should be completed for each school with a gymnasium, a multi-purpose physical education room, a playing field suitable for team sports, or an outdoor hard-surface area used for physical education activities.

For other instructions, please consult the page of explanations and instructions.

SECTION A. IDENTIFICATION AND GENERAL INFORMATION

1. Name of school	2. School number	3. Location of school (city, town, municipality, etc.)
-------------------	------------------	---

4. Name of school board

5. Total enrolment in the school Feb. 1972	6. Grades (or years) taught in the school	7. Year of original construction of present school
---	--	--

SECTION B. PHYSICAL EDUCATION FACILITIES

1. If there is no gymnasium or multi-purpose P.E. room in the school, check here []

2. Number of gymnasiums and multi-purpose P.E. rooms

Number

Single purpose gymnasium	001	
Gymnasium-auditorium	002	
Other gymnasium combinations.	003	
Multi-purpose P.E. room	004	

3. Number of courts in the gymnasium equipped for

Number

Basketball (main courts).....	005	
Basketball (cross courts).....	006	
Volleyball (main courts).....	007	
Volleyball (cross courts).....	008	
Badminton.....	009	

4. Specifications of gymnasiums (excluding multi-purpose P.E. rooms)

	Gymnasium No. 1		Gymnasium No. 2		Gymnasium No. 3	
Year of construction if different from A(6.) above	010		011		012	
Length of playing surface in feet	013		014		015	
Width of playing surface in feet	016		017		018	
Ceiling height in feet. If irregular, give minimum height above the playing surface	019		020		021	
Type of partition if any (specify whether visual or solid divider)	022		023		024	
Type of floor (e.g. hard- wood, tile, sheet lino- leum, cork etc.)	025		026		027	
Type of bleachers if any (specify whether perman- ent or folding)	028		029		030	
Approximate seating capa- city of bleachers (not including benches, chairs, standing room, etc.)	031		032		033	

5. Check which of the following specific items of gymnasium equipment are in the school.

- | | |
|---|--|
| 034 <input type="checkbox"/> Climbing frames - fixed | 044 <input type="checkbox"/> Balance bench |
| 035 <input type="checkbox"/> Springboard | 045 <input type="checkbox"/> Archery nets |
| 036 <input type="checkbox"/> Weights | 046 <input type="checkbox"/> Peg boards |
| 037 <input type="checkbox"/> Climbing frames - portable | 047 <input type="checkbox"/> Balance pole |
| 038 <input type="checkbox"/> Beat board | 048 <input type="checkbox"/> Golf nets |
| 039 <input type="checkbox"/> Landing pits (foam) | 049 <input type="checkbox"/> Vaulting horse |
| 040 <input type="checkbox"/> Climbing ropes | 050 <input type="checkbox"/> Rings (flying or still) |
| 041 <input type="checkbox"/> Balance beam | 051 <input type="checkbox"/> Volleyball, badminton standards |
| 042 <input type="checkbox"/> Cargo nets (scrambling) | 052 <input type="checkbox"/> Pommel horse |
| 043 <input type="checkbox"/> Chinning bars | 053 <input type="checkbox"/> Trampoline |

- 054 ☐ High jump standards 060 ☐ Score clock (wall mounted)
 055 ☐ Horizontal bars 061 ☐ Uneven parallel bars (Reuther system)
 056 ☐ Trampoline 062 ☐ Wrestling mats
 057 ☐ Pole vault standards 063 ☐ P.A. system
 058 ☐ Parallel bars* 064 ☐ Stall bars
 059 ☐ Gym mats 065 ☐ Wrestling mat covers
 * With or without conversion units 066 ☐ Record player

6. Floor area of storage space for physical education equipment	067	Sq.ft.
---	-----	--------

7. Is the gymnasium area equipped with the following service facilities?

- | | | | |
|--------------------------------------|-----|------------------------------|-----------------------------|
| Showers | 068 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Change room(s) | 069 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Separate drying (towelling) room ... | 070 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Equipped first-aid station | 071 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Team locker and equipment rooms | 072 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

8. Does the school have its own swimming pool on site?....	073	<input type="checkbox"/> Yes <input type="checkbox"/> No
--	-----	---

If yes, give the following specifications

- Type ☐ Indoor ☐ Outdoor
 Heated? ☐ Yes ☐ No
 Shape: ☐ Rectangular ☐ T. ☐ L. ☐ Oval
 Maximum length (in feet)
 Maximum width (in feet)
 Maximum depth (in feet)
 Minimum depth (in feet)
 Number of diving boards
 Height of highest diving board (in meters)

9. Does the school have its own outdoor playing field on site?	074	<input type="checkbox"/> Yes <input type="checkbox"/> No
--	-----	--

If yes, give number of fields

Are the following facilities available?

Soccer	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Football goal posts	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Field hockey goals	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Baseball backstop(s)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Basketball backboard(s)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Volleyball standards	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Tetherball standards	<input type="checkbox"/> Yes	<input type="checkbox"/> No

For largest playing field, give

Length of field in yards	_____
Width of field in yards	_____
If irregular shape, what is the approximate total acreage?	_____

10. Does the school have its own running track
on site? 075 ☐ Yes ☐ No

If yes, give the following specifications

Width of track in feet	_____
Overall length of track	_____ or _____ yds meters
Length of straightaway	_____ or _____ yds meters
Type of track	<input type="checkbox"/> Cinder <input type="checkbox"/> Dirt <input type="checkbox"/> Other (specify)

11. Does the school have its own ice rink
on site? 076 ☐ Yes ☐ No

If yes, type ☐ Indoor ☐ Outdoor

Artificial lighting	<input type="checkbox"/> Yes <input type="checkbox"/> No
Length in feet	_____
Width in feet	_____

12. Does the school have its own tennis
courts on site? 077 ☐ Yes ☐ No

If yes, number of courts

Type of surface	<input type="checkbox"/> Clay <input type="checkbox"/> Lawn
	<input type="checkbox"/> Asphalt <input type="checkbox"/> Cement
	<input type="checkbox"/> Other (specify)

13. Does the school have a hard-surface area for outdoor physical education activities? 078 ☐ Yes ☐ No

If yes, what is the approximate area .. _____ sq. ft.

14. Is there an outside rebounding wall in conjunction with an asphalt pad? ... 079 ☐ Yes ☐ No

15. Does the school have four-walled courts suitable for handball and squash? 080 ☐ Yes ☐ No

If yes, number of courts _____

SECTION C. PHYSICAL EDUCATIONAL PROGRAMME

1. General characteristics of the physical education instructional programme of the school for each grade.

Grade (or year)		Programme status (see instructions)	Length of school week or cycle (periods)	Number of classes for each grade
Grade I	082			
Grade II	083			
Grade III	084			
Grade IV	085			
Grade V	086			
Grade VI	087			
Grade VII	088			
Grade VIII	089			
Grade IX	090			
Grade X	091			
Grade XI	092			
Grade XII	093			
Special education classes	094			
Ungraded occupational or vocational classes	095			

Grade (or year)		Length of class periods (minutes)	Average number of periods classes meet per school week or cycle	Total number of students participating for each grade
Grade I	082			
Grade II	083			
Grade III	084			
Grade IV	085			
Grade V	086			
Grade VI	087			
Grade VII	088			
Grade VIII	089			
Grade IX	090			
Grade X	091			
Grade XI	092			
Grade XII	093			
Special educa- tion classes	094			
Ungraded occupa- tional or voca- tional classes	095			

2. Does the school have separate physical education classes for physically handicapped students? 096 ☐ Yes ☐ No
If yes, give the number of students participating _____

3. Number of students in this school who are permanently excused participation in physical education activities because of physical or other handicaps ...097 _____

4. Intramural programme.

Check (✓) those sports which form part of the school's intramural programme.

		Boys teams	Girls teams	Co-ed teams			Boys teams	Girls teams	Co-ed teams
Basketball	098	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gymnastics	099	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volleyball	100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wrestling	101	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Broomball	102	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Swimming	103	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Floor hockey	104	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Diving	105	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					Weight training	107	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Boys teams	Girls teams	Co-ed teams			Boys teams	Girls teams	Co-ed teams
Badminton	106	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Baseball	109	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ice hockey	108	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Softball, fastball	111	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Field hockey	110	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Handball or squash	113	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soccer	112	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Skiing	115	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Football	114	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Crosscountry	117	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rugby	116	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Orienteering	119	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Curling	118	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tabloids	121	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tennis	120	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other (speci- fy) _____	123	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Table tennis	122	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	125	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Golf	124	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	127	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Track and field	126	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

5. Approximately what percentage of the total student population of the school participates in the intra-mural programme? 128

6. Interscholastic programme.
Give the number of participants (players) for each sport and indicate who coaches the teams

		Number of participants		Coaches*	
		Boys	Girls	Boys teams	Girls teams
Basketball	129				
Volleyball	130				
Broomball	131				
Floor hockey	132				
Badminton	133				
Ice hockey	134				
Field hockey	135				
Soccer	136				
Football	137				
Rugby	138				
Curling	139				

		Grades I-III	Grades IV-VI	Grades VII-IX	Grades X-XII	Special education classes	Ungraded occupational or vocational classes
Skating	186	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Track and field ...	187	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Swimming and water safety	188	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Weight training ...	189	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor activities							
-hiking	190	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-orienteering	191	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-camping	192	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-canoeing or sailing	193	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-survival training	194	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-skiing	195	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)							
_____	196	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	197	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	198	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	199	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION D. COMMUNITY USE OF GYMNASIUM FACILITIES

1. Is gymnasium of this school used after school hours or on weekends for community recreational activities?

200

- ☐ Yes, after school hours on school days only.
☐ Yes, on weekends only.
☐ Yes, both after school and on weekends.
☐ No.

2. Do community groups have access to the gymnasium during the summer holidays?

201

- ☐ Yes ☐ No

3. Is the community charged rent for use of the gymnasium?

202

☐ Yes ☐ No

For use of outdoor athletic facilities?..... 203 ☐ Yes ☐ No

SECTION E. SCHOOL USE OF COMMUNITY FACILITIES

1. Does the school make use of the community facilities

for swimming? 204 ☐ Yes ☐ No

ice skating? 205 ☐ Yes ☐ No

roller skating? 206 ☐ Yes ☐ No

curling? 207 ☐ Yes ☐ No

2. Is the school charged rent for the use of community facilities?

208 ☐ Yes ☐ No

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